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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,190	09/21/2005	Youval Katzman	27001U	7379
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NATH & ASSOCIATES 112 South West Street Alexandria, VA 22314			EXAMINER SCHNEIDER, CRAIG M	
			ART UNIT 3753	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/550,190

Applicant(s)

KATZMAN ET AL.

Examiner

CRAIG M. SCHNEIDER

Art Unit

3753

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-6, 8-21, 23-25 and 27-38 is/are pending in the application.
- 4a) Of the above claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6, 8-15, 17-21, 23-25, 27-30 and 33-38 is/are rejected.
- 7) ☒ Claim(s) 31 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings were received on 2/27/08. These drawings are entered because the new drawings address the objections stated in paragraphs 4-6 of the office action mailed on 10/29/07. However, other informalities in the drawings need to be corrected as indicated in the following paragraph.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the suspension arrangement of claims 19 and 20 and the screen of claim 24 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 23 is objected to because of the following informalities: Claim 23 depends from claim 22 which was cancelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 3-6, 8-15, 17-21, 23-25, 27-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 1 recites the limitation "said pivotal attachment" in line 9. There is insufficient antecedent basis for this limitation in the claim.

7. Claims 23 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 23 recites the limitation "the casing" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1, 3-5, 8-10, 14-15, 17-19, 21, 23, 25, 37, and 38 are rejected as understood under 35 U.S.C. 102(b) as being anticipated by Borden (1,936,537).

Borden discloses a gas purge valve comprising a housing (1) formed with an inlet (39) and an outlet (area surrounded by 9), the outlet formed with a valve seating (9), and a sealing assembly (8) comprising a sealing member displaceable between an open position and a closed position; the sealing assembly being internally received within the housing, when in the open position; wherein the sealing assembly is supported by an external support lever mechanism (14 11, 10, and 12) extending outside the housing and pivotally attached thereto, to thereby displace the sealing assembly into sealing engagement with the valve seating at the closed position, the gas purge valve further comprising a float member (7) pivotally secured (5) to the sealing assembly within the housing, and being displaceable susceptible to liquid level within the housing; wherein the pivotal attachment allows the sealing assembly freedom to self align with the valve seating at a closed position (page 1, line 42 to page 2, line 30).

Regarding claims 3, 4, and 5; the float member is suspended from the sealing assembly as can be seen in the Figure and is further suspended from the sealing assembly by a rigid connecting rod (4) which the end (area that is connected to 5) is pivotally coupled to the sealing assembly.

Regarding claims 8, 9, and 10; the support lever is pre-loaded (13) so as to effect engagement of the sealing assembly with the valve seating and the pre-loading of the support lever is adjustable to thereby adjust the force required for sealing the valve.

Regarding claims 14 and 15, the support lever is biased (13) in a direction to displace the sealing assembly into sealing engagement with the valve seating and the biasing force is adjustable.

Regarding claim 17, the support lever is provided with a control mechanism (13) for adjusting the moment of rotation about a pivoted end thereof.

Regarding claim 18, the support lever is provided with dampening arrangements (13) to dampen displacement of the sealing assembly into the closed or open position (the weight slows the opening of the valve).

Regarding claim 19, a suspension arrangement is provided for delaying displacement of the sealing assembly (the float counteracts the effect of the weight 13 therefore the float delays the sealing assembly).

Regarding claim 21, the housing has a frustoconical shape as seen in the Figure.

Regarding claim 23, the casing (16) is received within an outlet duct extending from the valve outlet and being in flow communication therewith.

Regarding claim 25, the intended use of the gas purge valve does not patentably distinguish over the prior art since the device could be used with a sewage system.

11. Claims 1, 3-5, 23, 24, 37, and 38 are rejected as understood under 35 U.S.C. 102(b) as being anticipated by Covell (815,268).

Covell discloses a gas purge valve comprising a housing (5, 6, 7, 16, and outer housing of 17) formed with an inlet (9) and an outlet (exit of housing 17), the outlet formed with a valve seating (the seat of valve 17), and a sealing assembly (the valve element of 17) comprising a sealing member displaceable between an open position

and a closed position; the sealing assembly being internally received within the housing, when in the open position; wherein the sealing assembly is supported by an external support lever mechanism (24 and 18) extending outside the housing and pivotally attached (area at which 18 attaches to 17) thereto, to thereby displace the sealing assembly into sealing engagement with the valve seating at the closed position, the gas purge valve further comprising a float member (20) pivotally secured (where 21 and 24 connect) to the sealing assembly within the housing, and being displaceable susceptible to liquid level within the housing; wherein the pivotal attachment allows the sealing assembly freedom to self align with the valve seating at a closed position (page 1, lines 36-112).

Regarding claims 3 and 4, the float member is suspended from the sealing assembly by a rigid connecting rod (21).

Regarding claim 5, an end of the connecting rod is pivotally coupled (where 21 and 24 connect) to the sealing assembly.

Regarding claim 23, the casing (13 and 14) is received within an outlet duct (13 and 14) extending from the valve outlet and being in flow communication therewith.

Regarding claim 24, an outlet opening of the duct is fitted with a screen (15).

Claim Rejections - 35 USC § 103

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Covell in view of Kennedy (5,386,844).

Covell discloses all the features of the claimed invention except that the connecting rod is spring-biased to dampen motion of the connecting rod. Kennedy discloses the use of a spring (11) to dampen the motion of the connecting rod (col. 3, lines 46-63).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the spring of Kennedy onto the joints of the rod/sealing assembly of Covell, to utilize a smaller float (col. 3, lines 51-53).

14. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borden in view of Schutte et al. (801,161).

Borden discloses using a counterweight as the pre-loading mechanism instead of wherein the pre-loading mechanism comprises an axle attached to the support lever and received within a casing fixedly supported by the housing, a coiled spring having one end thereof engaged with the axle and an opposed end thereof engaged with a tension setting nut rotatable with respect to the axle in a first sense to tension the spring, and in an opposite sense to loosen the spring. Schutte et al. disclose a pre-loading mechanism that comprises an axle (P1) attached to the support lever (i) and received within a casing (O) fixedly supported by the housing, a coiled spring (P3) having one end thereof engaged with the axle and an opposed end thereof engaged with a tension setting nut (O2 and O3) rotatable with respect to the axle in a first sense to tension the spring, and in an opposite sense to loosen the spring. Schutte et al. shows that the counterweight and the adjustable spring loaded mechanism are art-recognized equivalents. Therefore, because these two elements were art-recognized

Art Unit: 3753

equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the spring loaded mechanism for the counterweight.

Regarding claim 13, the examiner is taking official notice that having the casing of the pre-loading mechanism water and dirt sealed is old and well known in the art and it would therefore have been obvious to provide Borden with water and dirt sealing to protect the internals of the Borden device to prevent premature failure.

15. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Borden in view of Maake (5,884,342).

Borden discloses all the features of the claimed invention except that the suspension arrangement comprises a viscous or visco-elastic damping assembly associated with a pivoted end of the support lever. Maake discloses using a viscous damping assembly (78,80, 82, 84, and 86) as seen in Figure 4B associated with a pivoted end of the support lever (44 and 46)(col. 3, lines 11-18 and col. 4, lines 41-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a dampening device as disclosed by Maake at the pivot spot of the support lever of Borden, in order to slow the movement of the valve in both directions.

16. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Borden in view of Perkins (5,957,150).

Borden discloses all the features of the claimed invention except that the outlet opening of the duct is fitted with a screen. Perkins discloses a screen (37) that is in the outlet opening (36)(col. 3, line 54 to col. 4, line 12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a screen in the outlet as disclosed by Perkins with the device of Borden, in order to keep debris and pests from the operating components of the valve.

17. Claims 27-30 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borden in view of Zakai (4,770,201).

Borden discloses all the features of the claimed invention except that the valve outlet is of the combined type comprising a major, kinetic outlet for high flow rate gas flow, and an auxiliary, automatic outlet for low flow rate gas flow. Zakai discloses the valve outlet is of the combined type comprising a major, kinetic outlet (34) for high flow rate gas flow, and an auxiliary, automatic outlet (35) for low flow rate gas flow (col. 5, line 1-58).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the valve closing element of Borden with the major and auxiliary closing element of Zakai, to allow for slow closure of the valve instead of a sudden closure.

Allowable Subject Matter

18. Claims 31 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

19. Applicant's arguments filed 2/27/08 have been fully considered but they are not persuasive. The applicant is arguing that Borden does not have a pivotal attachment that allows the sealing assembly to self align with the valve seating at a closed position. The examiner has indicated above that the float (7) is pivotally secured (5) to the sealing assembly (8) and since the purpose of the float is to close the valve when the water level rises, the sealing member would therefore be able to align with the valve seat in the closed position since that is the intention of the device of Borden. In response to applicant's argument that the Borden reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., facilitating the flow of gas at low flow rates) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The applicant is arguing that the weight (13) of Borden is not a pre-loading mechanism. The examiner has taken the position that the weight (load) is a pre-loading mechanism. The pre-loading mechanism of the applicant's invention biases the device in the closed position which is the same thing that the weight of Borden accomplishes. The applicant is arguing that the weight of Borden does not dampen the valve's motion. The examiner has taken the position that the weight would slow the opening of the valve. This anticipates the claim language since the valve is biased closed by the weight and the float biases the valve open, therefore the weight dampens the effect of the float on the valve. The applicant is arguing that

Art Unit: 3753

the examiner did not address claims 37 and 38 in the rejection in the Office Action dated 10/29/07. Claims 37 and 38 are broader in scope than claim 1. All the structure recited in claims 37 and 38 is in claim 1 and therefore claims 37 and 38 are clearly anticipated by the rejection of claim 1, thus claims 37 and 38 were addressed in the Office Action dated 10/29/07.

20. Applicant is arguing that Covell does not anticipate the amended claim language. The examiner has utilized Covell to reject the amended claim and has explained how Covell still reads on the claims as indicated above. The applicant is arguing that the spring of Kennedy does not provide a dampening effect because it is a torsion spring and would therefore make the float appear to be larger. A spring would provide a dampening effect even if it is a torsion spring; therefore the claim is properly rejected.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Torrence (4,892,285) and Anderson, Jr. (5,220,982) disclose viscous dampening chambers to slow the movement of the valve in both directions.

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CRAIG M. SCHNEIDER whose telephone number is (571)272-3607. The examiner can normally be reached on M-F 8:30 -5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. M. S./
Examiner, Art Unit 3753
May 13, 2008

/Stephen M. Hepperle/
Primary Examiner, Art Unit 3753

